



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OFFICE OF THE
REGIONAL ADMINISTRATOR

December 11, 2012

George Price, Superintendent
Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, Massachusetts 02667

RE: EPA Comments on the Department of the Interior National Park Service Herring River Restoration Project Draft Environmental Impact Statement/Environmental Impact Report, Wellfleet and Truro, Massachusetts (CEQ# 20120319)

Dear Mr. Price:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we have reviewed the October, 2012 Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) for the Herring River Restoration Project in Wellfleet and Truro, Massachusetts. The DEIS/EIR was prepared by the Department of the Interior National Park Service (NPS) and Herring River Restoration Committee to evaluate the impacts of tidal restoration in the Herring River flood plain within the Cape Cod National Seashore (CCNS). EPA offered scoping comments to support preparation of the EIS and has served as a cooperating agency and member of the technical working group on the project since 2009. Our involvement in the project, however, dates back as far as 1994 with our support for the project as a Coastal America Northeast Regional Implementation Team (NERIT) priority when we supported the Coastal America "Resolution to Restore Massachusetts Wetlands." EPA recognizes this project as an exciting opportunity for ecological restoration in New England and as a high priority for the region.

In general we found the DEIS/EIR comprehensive, well organized and informative, and because we had the opportunity as a cooperating agency to review and comment on pre-publication drafts of the DEIS/EIR, we have no objections to the project or specific technical comments to offer. Instead, this letter contains recommendations for ongoing public coordination by the NPS and a request for continued involvement in the development of the adaptive management plan protocols for the project.

Over the past 18 years EPA has worked with a number of state and federal agencies to support efforts to restore tidal flows to coastal wetlands across New England. The Herring River project builds upon the success of numerous other ecological restoration projects involving the removal of tidal restrictions including work at the 99-acre Galilee Bird Sanctuary marsh in Narragansett, Rhode Island; the 90-acre Hatches Harbor salt

marsh restoration in Provincetown Massachusetts; the 50-acre Sagamore Marsh restoration project in Bourne, Massachusetts; the 193-acre Little River salt marsh restoration in North Hampton and Hampton, New Hampshire; and the Sachuest Point National Wildlife Refuge restoration in Charlestown, Rhode Island. Numerous other salt marsh restoration projects have occurred in New England with many in Massachusetts guided principally by the efforts of the Massachusetts Division of Ecological Restoration, or the NOAA Restoration Center. The Herring River restoration project, however, represents the single largest salt marsh restoration project in New England to date. EPA is pleased to support each of these ecological restoration efforts as they are consistent with broad goals of the Clean Water Act to restore and maintain the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water." Clean Water Act Section 101, 33 U.S.C. §1251.

Background

The DEIS/EIR describes environmental degradation that followed the 1909 construction of the Chequessett Neck Road dike at the mouth of the Herring River in Wellfleet, Massachusetts. The dike (installed with tide gates) was designed to drain the upstream marsh and reduce salt marsh mosquito populations. The resulting 100 years of tidal restriction and salt marsh drainage did not solve the nuisance mosquito problem and led to severe impacts to the 1100-acre Herring River estuary. The DEIS/EIR does a good job describing these impacts. They include the loss of salt marsh vegetation, degraded estuarine habitat and water quality (resulting in periodic fish kills), and changes to sedimentation processes (that led to salt marsh surface subsidence). Over time the lack of tidal exchange led to listing the Herring River as an "impaired" water under Section 303 (d) of the Clean Water Act due to low pH and high metal concentrations. The dike also created a significant barrier to the migration of river herring within the estuary. The adverse effects of restricted tidal flow in the Herring River estuary has been extensively studied and documented in scientific literature for more than 30 years. The DEIS also documents how existing roads, residences and other land uses (such as the Chequessett Yacht and Country Club (CYCC)) within the project area might be affected under different restoration scenarios.

As part of the EIS/EIR development the NPS and Herring River Restoration Committee established objectives that would meet the purpose of the project "...to restore self-sustaining coastal habitats on a large portion of the 1,100-acre Herring River estuary in Wellfleet and Truro, Massachusetts." (DEIS/EIR Page 1) The objectives range from reestablishing a natural tidal regime, salinity and sedimentation patterns in the estuary while improving water quality to enhancements of recreational opportunities. All of the alternative scenarios considered in the DEIS/EIR were developed with consideration of these objectives. In all cases the reconnection of the estuary to the influence of the tide, within the limits of existing infrastructure and social constraints, remains the primary objective of the project.

Alternatives

The NPS facilitated a series of interagency discussions to help develop a range of reasonable action alternatives for the EIS. As a result of that process three action alternatives were advanced for consideration. All of the action alternatives would result in improvements to water quality in the Herring River estuary and they target varying levels of ecosystem restoration driven largely by differences in the amount of tidal flow allowed. Alternative A is the no action alternative (retention of the existing dike and tidal restrictions at Chequessett Neck Road). Alternative B includes a new tidal control structure at Chequessett Neck with no dike at the Mill Creek sub-basin (where the CYCC is located). Under this alternative the new flood control structure at Chequessett Neck would be used to limit tidal flooding and flood mitigation measures would be needed in the Mill Creek sub-basin. Alternative C would include the new tidal control structure at Chequessett Neck and a dike at Mill Creek that excludes tidal flow. The dike at Mill Creek would avoid flood impacts within the Mill Creek sub-basin. Alternative D is a slight modification of Alternative C with tide gates at Mill Creek to partially restore tidal flow to the Mill Creek sub-basin. Alternatives B and D include two options to mitigate flood impacts to the CYCC—relocation of portions of multiple low-lying golf holes to upland areas or elevation of affected areas in place.

The NPS and Herring River Restoration Committee identified Alternative D (with elevation of the CYCC golf course) as the preferred alternative. EPA supports selection of this alternative as it would restore tidal exchange to approximately 890-acres of former salt marsh and tidally influenced freshwater and brackish wetland habitats in the Herring River estuary. The project would also dramatically improve water quality conditions in the estuary over time.

Project Design and Adaptive Management

All of the project alternatives incorporate flood mitigation measures to address impacts from increased tidal exchange. The proposed work described in the DEIS/EIR includes raising approximately 8000 linear feet of low-lying roads including several segments of Pole Dike, Bound Brook Island, and Old County roads where they cross the Herring River and its tributaries. Additional engineering studies and traffic analyses are planned to help evaluate these actions and the potential for relocating some of the roads if necessary. The analysis also explains that potential significant adverse flood impacts to private property will be addressed on a property-specific basis and may include restricting the tidal flow at Pole Dike Road with a tide control gate if needed.

We are also encouraged by the NPS and HRRC promise to coordinate with potentially affected private property owners to mitigate flooding impacts to private property and potential impacts to private water supplies. The development of a Memorandum of Understanding (MOU) between the towns and the CCNS is noted in the DEIS/EIR as an important component of the work necessary to advance the project. The FEIS should explain the schedule for development of the MOU and whether it will address potential impacts to private property owners.

Restoration of tidal flows through the construction of a new structure at Chequessett Neck Road is the key component of the project design. The new dike will feature an adjustable tide gate that will allow for an incremental/gradual reintroduction of tidal flow to upper reaches of the estuary. The gradual opening of the tide gates will be part of an adaptive management plan proposed by the NPS and Herring River Restoration Committee to monitor how well the project is meeting established goals.

We found the discussion contained in the opening paragraphs of Appendix C of the DEIS/EIR particularly effective at conveying the underlying concepts of adaptive management as they will relate to this project.

“...the Herring River project will be implemented by following an adaptive approach to achieve restored tidal conditions through the management of adjustable tidal control gates and the implementation other restoration actions over a period of years. This adaptive approach is designed to minimize risk to property and the environment given current uncertainties about the response of the Herring River system to the restored tidal conditions that have not been experienced in the last 100 years. Such risks necessitate a cautious start, when uncertainty is greatest; monitoring the outcomes of initial (and subsequent) tidal influx will reduce uncertainties regarding how the Herring River system responds to new conditions and allow the restoration project to proceed at a faster rate with greater confidence and less risk of unintended outcomes. Adaptive management (AM), in the context of natural resources, is an approach for simultaneously managing and learning about the dynamics of resources under management. It is a formal process intended to aid decision making in situations where the outcomes are uncertain and learning is achieved by monitoring the system after management actions are implemented. Learning is targeted specifically at those uncertainties that impede decision-making and, thus, serves to improve our ability to predict outcomes and make better future decisions.”

We support the NPS use of adaptive management as an important tool to foster project success and to promote learning to address uncertainties. We also endorse the use of the adaptive management process as a tool to better inform and engage the public and stakeholders in the restoration process. EPA looks forward to working with the NPS and the Herring River Restoration Committee during the development and implementation of the adaptive management plan and we expect that our involvement will help us address our responsibilities related Clean Water Act permitting for the project in conjunction with the U.S. Army Corps of Engineers.

Conclusion/Rating

Based on our review of the DEIS we have no objections to the project as described and we rate this EIS “LO-1 - Lack of Objections–Adequate” in accordance with EPA’s

national rating system, a description of which is attached to this letter. We support the NPS focus on the long term and broad environmental goals of the Herring River restoration project and believe the project outlined in the DEIS/EIR will greatly benefit the natural National Seashore and surrounding region. We encourage the NPS to consider our recommendations as it works to develop the FEIS and we look forward to continued work with you as you refine and implement the adaptive management plan for the project.

We appreciate the opportunity to comment on this DEIS/EIR. Please feel free to contact me or Timothy Timmermann, Associate Director of the Office of Environmental Review at 617/918-1025 if you wish to discuss these comments further.

Sincerely,



H. Curtis Spalding
Regional Administrator

Attachment

cc:

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Holly Johnson, EEA No. 14272
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.